

University Functioning @OPJU, Raigarh during COVID-19 Pandemic and Subsequent Lockdown

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Introduction:

COVID-19 pandemic has affected every sector of life across the globe, be it economy, businesses, manufacturing or education. The rapidly evolving situation around the pandemic poses a whole lot of challenges to the functioning of higher education institutes in India. Probably universities and regulatory bodies never thought of such a situation and we did not have a contingency plan in place. The Universities, under such unprecedented situations, don't have many options and are forced to go online. But the challenge is that all the Institutes and universities of India are not fully prepared to leverage digital tools and technologies. This sudden paradigm shift is set to disrupt the university functioning and creating lots of issues, challenges and conflicts, but at the same time it offers an opportunity to evolve ourselves and transform the Higher Education Sector across the globe.

After the declaration of closing the institution on 16th of March 2020 by government of India and further announcement of lockdown 1.0 on 24th March 2020, followed by lockdown 2.0 and lockdown 3.0, the OP Jindal University (OPJU), Raigarh quickly adapted to the situations and continued all its operation without any interruption. The university immediately started online teaching, learning, assessment and went digital to take care of all day to day university operations. Further, we also explored the examination and evaluation mechanisms and all other administrative activities for the current semester during lockdown and COVID-19.

OPJU is a multidisciplinary university offers Diploma, Under Graduate (UG), Post Graduate (PG) and Ph D programs across its three schools namely School of Engineering, School of Management and School of Science and have 65+ full time faculties, 10 visiting faculties and 1200+ students. During the lockdown period faculty have undergone the process of technology adoption and students are involved with various online modes of learning. There was lots of fear, anxiety, concern and consciousness among students and faculty regarding COVID-19.

The university functioning model has been evolved taking into consideration experiences and suggestions from faculty and students, webinars from different academic leaders and experts across the world. The purpose of this white paper is to illustrate the evolution and adoption of a new model for university functioning during COVID-19 by adapting new technologies and meaningful engagement of the students with various online/virtual sessions. The following major activities have been brought under the umbrella of new functional model for the university operations in order to come out unaffected and stronger during COVID-19 and lockdown:

1. Online Teaching and Learning:

At the time when students were asked to leave the campus, the university session was running and the courses were in the middle of completion. It was really challenging to complete the syllabus and keep the students engaged meaningfully. Usually any change is resistive and changing the mindset is difficult, especially of the faculties. But OPJU was quick to adapt to the situation and faculties shifted to the online mode of teaching learning to cover the remaining part of the syllabus for the courses assigned to them for the current semester. After an initial inhibition, the students and the faculty both became accustomed and comfortable to the online teaching learning process.

The tools used by faculty members during lockdown for teaching- learning online are - Zoom, Google Hangouts/meet, Skype, Google classrooms, Moodle Learning Management System (LMS), Google forms, YouTube, etc. We conducted online Faculty development programs to gear up to adopt changing pedagogies and instill positivity among faculty during the crisis. The faculty members started re orienting the study material to online mode for example they converted the courses notes into ppts, conversion of assignments into the e content and so on. The Moodle proved to be a very useful tool at OPJU in uploading course material, assignments, case studies and quizzes. The students could submit the assignments on Moodle that are evaluated by faculties and feedback was shared immediately. At OPJU, during the online classes' faculties carried out assignments, quizzes, and internal assessment, project evaluations and many other academically important activities. We also conducted many internal surveys of faculties and students to understand and update our online teaching/learning. Based on the survey following are the gist of the online teaching learning:

- The average attendance of the students is much better as compare to classroom teaching
- It is heartening to know that teachers have taken up online teaching with great interest
- The fears of poor quality of online teaching and teachers' unwillingness to use online portals have reduced drastically over the period.
- Digitally proficient students are taking more interest in online learning with great excitement
- Poor network connectivity, accessibility, and the inadequate bandwidth, especially in rural areas, were reported as major issues/challenges
- The effectiveness of online teaching depends on many factors like supporting infrastructure, mindset and preparedness of faculty members and the students
- Online teaching is important, required but cannot be a complete replacement of classroom teaching.

OPJU has evolved a model and suitable guidelines for the conduction of online classes in a highly structured and efficient manner. We also learnt to manage the cyber security and safety issues, effectively utilizing the bandwidth and using Moodle for almost every academic activity. It's also interesting to see the gamification in action to generate interest and curiosity of the students in the subject.

2. Examination and Evaluation:

The conduct of examinations is now a major challenge for universities in India if the lockdown continues and/or universities remain closed for next few months. University Grant Commission (UGC) too recommended conducting online examinations if the university has the required resources and competencies. We at OPJU are having good IT infrastructure and competent people to conduct the end semester examination in online mode. Maintaining the sanctity of academic expectations and integrity of examination is the key parameter to take care of. We are working hard to create a robust and secured platform and mechanisms to handle all the issues and problems of bandwidth, poor connectivity and diverse gadgets. The effort made by OPJU in this respect is highly encouraging in order to minimize the complexity of the overall process and at the same time maintain the sanctity of the examination.

A pilot project and Proof of Concept (PoC), we have already successfully conducted a mid-semester examination of some of our students in the last week of April 2020. This Pilot project was implemented across all the schools of the university for around 40 subjects from all years and the duration of the examination was 1 hour. Two types of questions were asked in the mid semester examination i.e. Objective type (Multiple choice, True False, Matching, One word) and subjective type (Short & Medium Answer). A dash board was made available to the faculty members to evaluate the subjective questions manually whereas objective questions are graded automatically. Marks totalling and grade sheet compilation is done automatically. In order to conduct the on line End Semester Examination (ESE), University has decided the following:

- i. It is decided that the university will conduct end semester examinations of its students first for the terminal semesters i.e. for final-year students who are to join the job market from June-July, through OPJU Moodle. On the same line, we may go for an online end semester examination for intermediate semester as well.
- ii. In the end semester examination duration will be one and half-hour for each course and it will be in online mode but in an open book manner. Uniformity will be maintained across the schools.
- iii. The question papers for such an examination will be set in a manner to assess the capabilities of the students to apply knowledge and also at the same time to judge their comprehensive understanding of the subject matter.
- iv. Special sessions will be carried out by the senior faculty and leadership team to guide the faculty for setting question papers while maintaining the sanctity of the exams.
- v. End semester practical examination and viva-voce will be conducted in an online manner. We have systematically structured and divided the slots of a group of 5 students each for the viva-voce which will be taken by Faculty in-charge and an external expert whether from industry or academia.
- vi. Project and Dissertation are continuously being monitored through online one on one session with the candidates. An online progress tracker is in place to gauge the weekly progress and address the issues. We are even prepared to conduct the Research Degree Committee (RDC) meetings in an online mode, if the situation demands.

3. Internship:

At OPJU, an internship is a “Learning by Doing” experience that is aimed at enhancing a student's academics, career progression and personality development and is part of the curriculum. Every student undergoes minimum 02 internships and we have a provision for a semester long internship as well. COVID-19 situation and subsequent guidelines from UGC and All India Council of Technical education (AICTE) encouraged us to evolve our own model for internships, which is apt for the situation and changing scenario. We had many discussions with Head of the Departments (HoDs) /faculties, brainstormed the situations, opportunities and options; and evolved a model, which offers different options to the students as below:

- i. **Physical Internships:** The students can opt for physical internships with a company provided proper care of social distancing, sanitization and company for COVID-19 situation assures safety. Duration of the internship should be approx 6-8 weeks. Students must submit an offer letter, joining letter, weekly progress report and completion certificate.
- ii. **Virtual/Online Internships:** The students can opt for online/virtual internships, in the form of Work From Home (WFH) model, offered by various companies or by various websites like Internshalas, letsintern etc. Duration of the internship should be approx 6-8 weeks. Students must submit an offer letter, joining letter, nature of the work, weekly progress report and completion certificate.
- iii. **Online Courses:** The students can opt for any relevant course from a credible online platform with approx 70-100 hours including hands-on with the technologies. Students must justify and seek permission with the details of the course. They must update weekly progress in the OPJU internship progress trackers to respective faculty mentors.
- iv. **Research and Projects:** We encourage students to work on innovative research and projects. We encourage students to publish papers, join conferences and participate in different hackathons/competitions. Students need to specify a problem statement and get approval from the concern department. He must submit a weekly plan, project flow and weekly progress report and complete documentation to the faculty mentor.
- v. **Entrepreneurship and Innovation:** OPJU established an Atal Community Innovation Centre (ACIC) in association with NITI Aayog, Government of India under Atal Innovation Mission(AIM).We provide support and mentoring to the students to get into entrepreneurship domain and make best use of COVID-19 time. A detailed report - ideation, case studies, feasibility, challenges, finance etc., is desired to get into this.
- vi. **University Offerings:** As per the guideline of the UGC and AICTE, all the schools of OPJU are offering project based internship courses to the students like Artificial Intelligence, Machine Learning, Data Analytics, Business 4.0 and Industry 4.0. In addition to above a few internships also offered for digital marketing.

Indeed, we believe that COVID-19 has opened up an entire spectrum of new Internship models and opportunities for the students, which is far better and broader than traditional internship options.

4. Campus Placement:

We at OPJU could sense the campus recruitment problems during the pre-lockdown period itself and shifted our strategies accordingly. In the sudden change of scenario, we were forced to cancel few of the scheduled drives, but soon we started figuring out the companies whose business is on rise during COVID-19 and quickly adapted to the new online norms. We extended companies all the help and support for conducting virtual campus drives from arranging online tests over OPJU MOODLE to Group Discussions (GDs) and Personal Interviews (PIs) in a virtual online fashion. Indeed some of our students got selected in good companies at very good packages, as high as 10 Lacs Per Annum (LPA), through a completely virtual hiring process.

There are a lot of news and social media posts that in the wake of the coronavirus outbreak in the country, many companies are revoking, revising or delaying the offers. By the time lockdown started our approx 80% students had already been placed. During the lockdown we started interacting with the company HRs and had talks with them one on one. Most of them said that they will honour the offers made but joining may be delayed and that depends on the COVID-19 situation.

Career Development Centre (CDC) is helping students sharpening their skills and making them ready for the post COVID-19 employment scenario. We are making use of online tools for conducting mock interviews, reviewing resumes and online tests. We are interacting with each individual student over Zoom to help them for revised career goals.

5. Research Activities:

Working From Home (WFH) has given the university administration an opportunity to engage our faculty not only in online classes but also to sustain their continued interest in research and development. Our teachers have significantly enhanced their interest in research and their capabilities to publish papers and bid for funded R&D projects during COVID-19 period. During March and April 2020, our faculty communicated 40+ research papers, published 10+ articles in various magazines and newspapers, submitted 5 funded R & D Project proposals, filed two patents, completed five book chapters and a few faculty members are writing books.

Ph D course work classes are being conducted online and progress of all the Ph D scholars is being discussed and supervised in an online manner. Even OPJU is prepared to conduct the RDC in an online fashion, if there is a need. The research data shows significant increased research contribution of the faculty during lockdown.

We also created communities of common interest and found that there is an upsurge in the creativity of our faculty and students. During this crisis, OPJU has been selected by NITT Aayog to establish ACIC under its flagship program Atal Innovation Mission (AIM).

6. Virtual Conferences, Workshops and FDPs:

COVID-19 outbreak forced us to cancel scheduled Faculty Development programs (FDPs) and Workshops but at the same time offered us an opportunity to think out-of-the-box and come-up with new solutions, which works in the current scenario. OPJU was quick to shift from physical in-person sessions to virtual sessions. In the process, we researched many online platforms and learnt using these communications tools effectively and intelligently.

We conducted many workshops and FDPs over Zoom and skype for faculty and students. All the Zoom security issues were studied and fixed in-house. We realized that though in-person physical presence has its value but going online has its own benefits. Online events offer opportunities for reaching wider audiences, reducing the carbon footprint of travel, and improving diversity and equity. We also observed that by privately messaging one another behind the scenes, participants were able to discuss and learn many things, which is not possible in physical mode. In addition, it drastically reduced cost of travel, honorarium, lodging- boarding, etc. and at the same time, we could invite better resource persons to deliver the sessions.

At OPJU, we are planning to conduct an online conference in the month of September 2020 on International Conference on Innovation, Entrepreneurship and Emerging Technologies (ICIEET-2020). From invitation to marketing to keynote deliveries to plenary session and all things will be done in a complete online fashion. It will certainly enhance digital competency of our faculty, increase our audience, improve the quality of the conference, and the conference will be able to create a better impact.

7. Webinar and Sessions:

Our leadership team has made this time more interesting and meaningful by featuring webinars on different technical and career oriented topics. Leadership team along with the reputed experts from industries, corporate and academia leaders delivered many sessions to make students and faculties aware of the contemporary and future needs of the industry and market. During this period OPJU hosted around 50 webinars on different topics and our members delivered 10+ webinars as a panelist organized by reputed organizations and agencies. The Webinars were organized and attended on the following topics:

- COVID-19 awareness sessions
- Faculty development programs
- Career counseling sessions for school and college students
- Stress Management
- Impact of COVID-19 on Higher Education
- Expert technical sessions on different topics and fields

8. Faculty and Student's Experience:

Largely faculties at OPJU are tech savvy and are open to try new pedagogies and evaluation mechanisms. Initially there was little apprehension in the minds of some of the faculties, especially the faculty who engaged in mathematical and graphic subjects. But the rest of the faculties were very excited to start online classes and practical sessions. Indeed they helped others and made them too comfortable. Over the period of time everyone started loving online teaching-learning-assessment and started using many different new tools and platforms to enhance the learning experience of the students.

Keeping students engaged and attentive in the class is a classical challenge for faculties all the time. Initially when we thought of going for online classes there was a little scepticism about the student's engagement and presence. However, once the faculty started taking classes, we all were surprised to see that students' attendance is much better in online classes compared to regular classes. Conducting classes at an intermittent time interval during the whole day was also liked a lot by students.

In addition to online classes conducted by faculty members, the university subscribed many online free courses for students during the lockdown period. E-Library sources and E-Books' have also been shared with students.

9. Social Engagements:

Since the very beginning of COVID-19, OPJU was in continuous engagement and communication with all the stakeholders of the university, especially students were at the center of our engagements. Following actions were initiated and are continuing at our end:

- We spread awareness and knowledge about COVID-19 safety and precautions through emails, whatsapp, social media posts and creative including videos, graphics etc.
- All the guidelines received from various government agencies and our corporate were percolated down the line time to time
- Our faculties keep continuous interaction with students and their parents during this period to make them aware of the situation and keep motivating
- Launched a community competition on Innovative Ideas about COVID-19 awareness, precautions, sanitizations, etc for the youth
- All OPJU employees donated their one day salary to PM CARE and CM Relief Fund
- OPJU team developed a design for sanitization gate cabin which is further manufactured by our group company and erected at different places.

10. Admission Process:

Admissions is one of the most important activities for any university, which directly affects the financial health and growth plans of the university. The pandemic has forced people's movements and confined them to their homes. This drastic change in behavior of people affected badly the admission process everywhere and OPJU is not an exception. COVID-19 came as an absolute surprise for the admission team, which forced them to work from home and has a major effect on its working style. However, this impact is not just limited to the admission teams but thousands of prospective students and their parents

as well. A few papers of the class 12th students are still pending and there is uncertain delay in many entrance examinations like IIT JEE (mains), NEET, etc. The admission cycle of higher education institutions and universities across the country will also be delayed accordingly. This delay and spread of COVID-19 will certainly affect the admission. Some institutions, based on their brand value, locality, safety & security etc, will attract better admissions and some may lose admissions. Also, it is expected that numbers of students who used to go abroad for higher studies may fall drastically and will be beneficial for good universities in the country.

OPJU has a fully dedicated tech savvy admission team of 10+ members and they quickly devised new mechanisms and adjusted themselves accordingly. As part of the modified admissions strategy, they fine-tuned strategies to use social media and digital marketing, found new ways to market the courses, found new means to connect with prospective students, reviewing outbound admissions strategies and approaching parents in a more responsible manner. Instead of physical job fairs and open houses, we have started virtual open houses and webinars to connect with parents and students. Based on the number of registration and enquiry so far it is observed that the aspirants are giving more preference to skilled based programs rather than the conventional programs.

11. Revised Academic Calendar for the Current and Forthcoming Semester:

The revised academic calendar for the current and forthcoming semester is given in the below table, which may further be revised based on the circumstances.

Revised Academic Calendar for Even Semester (January to July 2020)	
Start of Even Semester	01.01.2020
Suspension of Classes	16.03.2020
Continuation of Teaching-Learning through online mode	25.03.2020
Pilot project on mid semester online examination	25.04.2020 to 30.04.2020
Internships duration	15.05.2020 to 10.07.2020
Dissertation/ Project / Internship / E-labs/ Completion of Syllabus/ Internal Assessment/ Assignment, etc.	01.06.2020 to 15.06.2020
Conduct of Examinations:	
• Terminal Semester/Year	16.06.2020 to 30.06.2020
• Intermediate Semester/Year	10. 07.2020 to 31.07.2020
Evaluation and Declaration of Result:	
• Terminal Semester/ Year	05.07.2020
• Intermediate Semester/ Year	15.08.2020
Revised Academic Calendar for odd Semester (August to January 2020)	
Admission Process	01.07.2020 to 31.08.2020
Commencement of Classes i. Students of 2 nd / 3 rd / 4 th year	01.08.2020
Commencement of Classes ii. Fresh batch (First Semester/Year)	01.09.2020
Conduct of Examinations	15.01.2021 to 10.02.2021
Evaluation and Declaration of Result:	15.02.2020
Commencement of Classes for Even Semester	16.02.2020

12. The Way Forward:

The COVID-19 pandemic forced higher education institutions across the globe to leverage the technologies and effectively use it to disseminate the knowledge. The situation hard-pressed the much desired push to the universities to go digital in full-fledged manner. It really helped OPJU explore and experience new possibilities to do things differently and with greater flexibility. It encouraged faculties to think out-of-the-box and innovate new teaching-learning-evaluation models resulting in potential benefits to all the stakeholders. It also helped administration and admission teams to touch upon the untapped potential customer segment and maximize outreach.

We at OPJU strongly believe that during COVID -19 technology has stepped into the breach and now it will continue to play a key role in all operations of the university functioning. We believe that a 6” screen can never be a replacement of a 6 feet teacher and 6 feet blackboard in the classroom. However, we would like to and continue harnessing the power of technology driven solutions in teaching-learning-evaluation, admission, administration, research etc. We are in the process of designing a new prototype and post-covid OPJU will adopt this new blended model, which will be an amalgamation of best of both - online model and traditional practices.

As we are all witnessing that covid19 has shaken the economies and industries, we see a paradigm shift in skill set and manpower requirements in the recruitment market. In order to address the market demands and make our students' jobs ready for the post-covid scenario, we at OPJU are revamping our entire curriculum in consultation with industry and academic leaders.

The world after post-covid will be a different one and so the OP Jindal University- Different, Better, Brighter.